

# Preserving Our Cultural Heritage through Historic Log House Restoration

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**L**og cabins built by generations before us are important symbols of our American history. President William Henry Harrison used the log cabin as a campaign symbol. The log cabin was birthplace and home for Abe Lincoln, as well as other national figures, and assumed by many historians to be the first type of house constructed by English colonists.

The rustic charm of a log cabin is a natural complement to a TREASURE Forest and the style of construction is replicated through many homes, camp-houses and guesthouses in Alabama's forests.

For many landowners, preserving an existing log structure is a practical decision. After all, an old log barn, corncrib or cabin can provide needed equipment shelter and storage space. Others own a log building with special memories and they carefully preserve it and its history for their descendants.

If you enjoy the beauty and history of a log cabin and aren't lucky enough to have one on your property, what do you do? What if an imitation, no matter how realistic, simply won't do?

For TREASURE Forest owners Mike and Cathy Strong, a brief want ad, "Antique House for Sale," in the local paper was the answer. After a close inspection of the Mississippi log house, they decided to buy it and move it to their land in Shelby County.

That was in 1991 and they are currently working on their 11th project. Mike says it is just a hobby, but the joy they find in the process and the enthusiasm with which they share it, truly deserves the cliché "labor of love."

Mike and Cathy have learned a lot about dismantling, transporting and reassembling a log structure in the last 10 years and are more than willing to share their knowledge. However, it is impossible to cover every guideline and pitfall in a single article. So, use this article to learn a brief history of American

log structures and, perhaps, whet an appetite to own your very own.

## History of Log Construction

The term *log cabin* generally denotes a simple one and one-half story structure that is somewhat impermanent and less finished or less architecturally sophisticated.

*Log house* historically means a more permanent, hewn-log dwelling, either one or two stories, of more complex design, often built as a second-generation replacement. One and two-story log houses were built in towns and settlements across the country until about the middle of the 20th century.

Log construction was not invented in the United States, but brought by north-west and central European colonists including Finnish, Swedish, Russian, German and French settlers. Log buildings were known to have been constructed as temporary shelters by soldiers during the Revolutionary War and, across the country, Americans used logs not only to build houses, but also commercial structures, schools, churches, grist-mills, barns, corncribs and a variety of outbuildings.

Settlers adapted their craft of log construction to regional climates, materials and terrains. Sometimes the plan and form of the structure provides clues to the ethnic origin or route of migration of the builder. Wood selection was most likely determined by availability. In Alabama, it was most often heartpine, the wood of the virgin forests of the South. Occasionally, a log home was built of poplar.

The basic unit is a one-room enclosure formed by four log walls joined at their corners, called a single "pen." The single pen was improved by installing interior partitions or by adding another log pen. Some typical plans include: a "continental plan," consisting of a single-pen of three rooms around a central hearth; the "double-pen plan," composed of two contiguous log pens; and the "dogtrot" plan, formed by two pens separated by an open passage space. All of these were typically built in the form of a one or one and one-half story settlement cabins.

Two-story log homes were sometimes built to replace earlier settlement cabins, but just as often the early hewn-log house was retained and enlarged. Each



*Sill logs are the large, hand-hewn logs that form the bottom of the house. They are not notched, but joined flush to create a stable foundation.*



*Relocating an original fireplace is extremely difficult and may be a fire hazard. Authentic-style rock is available and an experienced brick mason can construct a pleasing fireplace and chimney that will protect the heart pine logs from risk of fire.*

generation of owners might expand an early log home by adding new log pens, or masonry or wood frame extensions. The addition of a rear ell or link to a freestanding outbuilding was particularly common. Sometimes a second story was added.

## Locating Log Structures

While want ads and word of mouth may be the easiest method for finding a log structure to buy, Mike enjoys the process of discovering one. You simply have to learn not to take an old house on face value, how to identify log architecture and not be afraid to get dirty, he says.

Owners of many of the late 18th and 19th century log buildings, particularly east of the Mississippi, successfully concealed all evidence of log construction to reflect newly achieved financial or social status. Interior walls were covered and painted and the exterior was commonly covered with wooden siding or aluminum, vinyl or asbestos.

So, an old farmhouse with lap siding

may actually be the log house you are looking for, Mike says. Start by looking underneath the house. The foundation usually consisted of stone or log piers set on grade. Earliest log cabins and temporary log dwellings were constructed directly onto log pilings but in warm, humid climates or when the home was intended to be permanent, it was more common to use stone piers that allowed air to circulate.



*This simple numbering system was used on a corncrib relocated a few years ago.*

Atop the piers, look for sill logs, the large, hand-hewed logs forming the bottom of the house. Harder, heavier wood such as white oak were often used as sill logs.

## Disassembling

Once you have selected a log building to relocate, physical assessment should be systematic and thorough.

- Take notes, photographs or video recordings, and make drawings that include overall and detail views.
- Remove interior and exterior wood coverings. Preserve these historic materials for other uses.
- Remove the roof, retaining rafters for other uses.
- Number logs so you will know how to reassemble the house. Mike recommends a simple method of nailing canning lids on the ends of the logs with roofing nails and writing an identifying mark on the lid, e.g. LF1 = left front 1. Use a drawing to coordinate this project.



- Relieve logs by removing wooden pins used to secure logs end located at the top of the four corners of the pen.
- Begin removing the logs with a backhoe with straps, a boom truck or by hand.
- Load the logs onto trucks or trailers as you go, loading the sill logs last.

## Reassembly

The foundation should drain well and adequately support the building. The sill log should clear the ground by at least eight inches.

- Stack stones from original house to create piers, generally four for a single-pen cabin.
- Decide where you want your doors and windows. Windows in log houses were typically small or non-existent, and door openings were often small.
- Place sill logs making absolutely certain they are level.
- Begin laying courses of logs, checking level as you go.
- Repair or replace decayed logs by plugging or splicing in seasoned wood
- After four walls are in place, add a roof of cedar shake or tin. The style of roof depends on the amount of room you want in the loft.
- If desired, add a porch or additional room to the cabin using reserved wood siding.



*Shelby County TREASURE Forest landowners Mike and Cathy Strong have restored several log structures.*



*Electric lighting does not have to detract from the home's authenticity.*

- Modern conveniences can be added without detracting from the simplicity of the cabin through careful camouflage. The Strong's ran central heat and air from underneath the cabin, added electrical outlets in the baseboards and brought wall switches out of door trim.

## Chinking

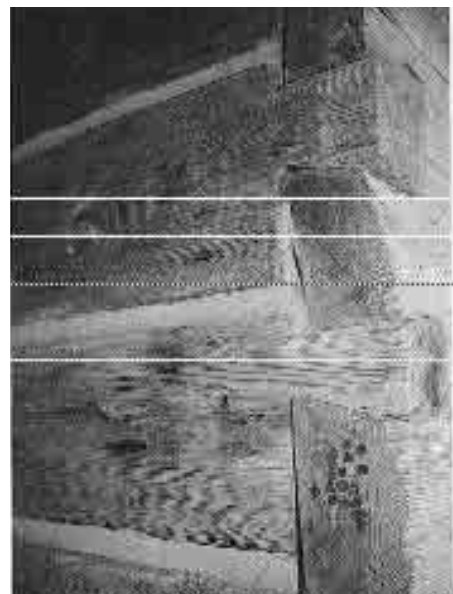
Horizontal spaces or joints between logs were usually filled with a combination of materials that together is known as chinking. First, a dry, bulky, rigid blocking, such as wood slabs or stones were inserted into the joint, followed by a soft packing filler such as moss, clay or dried animal dung. Mixtures of clay, lime, sand and, as binders, animal hair or straw was troweled on to seal the openings. Sometimes, carefully fitted wood strips were nailed lengthwise across the log joints.

Modern chinking is often a commercial mixture of latex and sand, known as Perma-chink. It comes in various colors and, unlike concrete, is pliable enough to expand and contract without cracking. For extra insulation, you may want to insert Styrofoam sheets between the logs, placing strips of hardware cloth on either side to give Perma-chink something to adhere to.

## Preserving

In most instances, chemical wood preservatives are not recommended on historic log buildings. Preservatives tend to change the color and appearance of the logs. However, a water sealant may be appropriate for added horizontal surfaces such as a porch.

Mike and Cathy worked closely with an experienced carpenter to complete their first log house restoration project. From beginning to end, it took about three months. Used as a guesthouse, it now rests on a small rise beside the lake



*Dove-tail notching provides a tight fit. The slash marks on the logs are a numbering system that indicates the house was once relocated by the owner. The cartridges driven into the logs are probably from the mid 1800s.*

on their TREASURE Forest. The property also features a relocated corncrib that was on the site of the new Hoover High School.

Historic properties are lost, often inadvertently, each time a log building is pushed over or burned during the clearing of land.

Like other historic buildings, moved or relocated log structures can suffer a loss of integrity of materials, but often this is the last resort to save them from demolition.

While the Strong's method may not be the most cost-efficient way to get a camphouse on your property, it may be the most rewarding. As Mike likes to say, "If you just want a camphouse, visit Jim Walter. If you want to own a piece of American art, restore a log cabin."

## Sources of Information

A National Park Service Brief, "The Preservation and Repair of Historic Log Buildings" by Bruce Bomberger, 1991.

"Barn Again! Program," National Trust for Historic Preservation, 1997.

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